

## Claims:

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1. A web content personalisation system for a communications network comprising:
    - 5 a client equipment unit capable of communicating with a content providing server for providing web content;  
a data manipulation server for disposing in-line between the client equipment unit and the content providing server, the data manipulation server being coupled to a data store arranged to store data relating to a user of the
    - 10 client equipment unit; wherein  
the data manipulation server is adapted to modify web-related data communicated between the client equipment unit and the content providing server using a predetermined amount of the data relating to the user in response to a request for obtaining the web content being transmitted from the client
    - 15 equipment unit.
  2. A system as claimed in Claim 1, wherein the web related data is data relating to a protocol.
  - 20 3. A system as claimed in Claim 2, wherein the protocol is a Hyper Text Transfer Protocol (HTTP).
  4. A system as claimed in Claim 1, wherein the web related data is the web content.
  - 25 5. A system as claimed in Claim 4, wherein the web content is Hyper Text Mark-up Language (HTML) data.
  6. A system as claimed in Claim 1, wherein the data relating to the user is
  - 30 static data.
  7. A system as claimed in Claim 6, wherein the static data is obtained from the user.

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8. A system as claimed in Claim 6, wherein the static data is obtained from a content provider associated with the web content.
- 5 9. A system as claimed in Claim 1, wherein the data relating to the user is dynamic data.
- 10 10. A system as claimed in Claim 9, wherein the dynamic data is obtained from an access provider associated with supporting communications between the client equipment unit and the content providing server.
11. A system as claimed in Claim 1, wherein the data manipulation server is a proxy server.
- 15 12. A data manipulation server apparatus for coupling in-line between a client equipment unit and a content providing server, the apparatus comprising:  
a data manipulation engine arranged to intercept a communication between the client equipment unit and the content providing server, the data manipulation engine being coupled to a data store arranged to store data  
20 relating to a user of the client equipment unit; wherein  
the data manipulation engine is arranged to modify web-related data contained in the communication using a predetermined amount of the data relating to the user in response to a request for obtaining web content being transmitted from the client equipment unit.
- 25 13. An apparatus as claimed in Claim 12, wherein the web related data is data relating to a protocol.
14. An apparatus as claimed in Claim 13, wherein the protocol is a Hyper  
30 Text Transfer Protocol (HTTP).
15. An apparatus as claimed in Claim 12, wherein the web related data is the web content.

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16. An apparatus as claimed in Claim 15, wherein the web content is Hyper Text Mark-up Language (HTML) data.

5 17. An apparatus as claimed in Claim 12, wherein the data relating to the user is static data.

18. An apparatus as claimed in Claim 17, wherein the static data is obtained from the user.

10 19. An apparatus as claimed in Claim 17, wherein the static data is obtained from a content provider associated with the web content.

15 20. An apparatus as claimed in Claim 12, wherein the data relating to the user is dynamic data.

21. An apparatus as claimed in Claim 20, wherein the dynamic data is obtained from an access provider associated with supporting communications between the client equipment unit and the content providing server.

20 22. An apparatus as claimed in Claim 12, wherein the data manipulation server is a proxy server.

23. A content providing server apparatus comprising:  
25 a transceiver and a processor coupled to a data store arranged to store web content, the transceiver and the processor being arranged to retrieve web-related data from the data store and transmit the web-related data to a user equipment unit in response to a request from the user equipment unit for the web content; wherein

30 the web-related data comprises an attribute corresponding to data relating to a user of the user equipment unit for replacement by a data manipulation server using the data relating to the user.

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24. An apparatus as claimed in Claim 23, wherein the web related data is data relating to a protocol.

25. An apparatus as claimed in Claim 24, wherein the protocol is a Hyper  
5 Text Transfer Protocol (HTTP).

26. An apparatus as claimed in Claim 23, wherein the web related data is the web content.

10 27. An apparatus as claimed in Claim 26, wherein the web content is Hyper Text Mark-up Language (HTML) data.

28. An apparatus as claimed in Claim 23, wherein the data relating to the user is static data.

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29. An apparatus as claimed in Claim 28, wherein the static data is obtained from the user.

30. An apparatus as claimed in Claim 28, wherein the static data is obtained  
20 from a content provider associated with the web content.

31. An apparatus as claimed in Claim 23, wherein the data relating to the user is dynamic data.

25 32. An apparatus as claimed in Claim 31, wherein the dynamic data is obtained from an access provider associated with supporting communications between the client equipment unit and the content providing server.

33. An apparatus as claimed in Claim 23, wherein the data manipulation  
30 server is a proxy server.

34. A content providing server apparatus comprising:

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a transceiver and a processor coupled to a data store arranged to store web content, the transceiver and the processor being arranged to retrieve web-related data from the data store and transmit the web-related data to a user equipment unit in response to a request from the user equipment unit for the web content; wherein

the request comprises web-related data corresponding to data relating to a user of the user equipment unit;

the data store also comprises at least one version of the web content, the at least one version of the web content corresponding to possible content preferences of the user;

the transceiver and processor are arranged to retrieve and transmit the at least one version of the web content corresponding to at least a portion of the data relating to the user in response to the request.

35. An apparatus as claimed in Claim 34, wherein the web related data is data relating to a protocol.

36. An apparatus as claimed in Claim 35, wherein the protocol is a Hyper Text Transfer Protocol (HTTP).

37. An apparatus as claimed in Claim 34, wherein the web related data is the web content.

38. An apparatus as claimed in Claim 37, wherein the web content is Hyper Text Mark-up Language (HTML) data.

39. An apparatus as claimed in Claim 34, wherein the data relating to the user is static data.

40. An apparatus as claimed in Claim 39, wherein the static data is obtained from the user.

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41. An apparatus as claimed in Claim 39, wherein the static data is obtained from a content provider associated with the web content.

5 42. An apparatus as claimed in Claim 34, wherein the data relating to the user is dynamic data.

43. An apparatus as claimed in Claim 42, wherein the dynamic data is obtained from an access provider associated with supporting communications between the client equipment unit and the content providing server.

10 44. An apparatus as claimed in Claim 34, wherein the data manipulation server is a proxy server.

15 45. Web-related data comprising an attribute corresponding to data relating to a user of the user equipment unit for replacement by a data manipulation server using the data relating to the user.

46. Protocol data comprising the web related data as claimed in Claim 45.

20 47. Hyper Text Transfer Protocol (HTTP) data comprising the protocol data as claimed in Claim 46.

48. Web content data comprising the web related data as claimed in Claim 45.

25 49. Hyper Text Mark-up Language (HTML) data comprising the web content data as claimed in Claim 48.

30 50. Web-related data as claimed in Claim 45, wherein the data relating to the user is static data.

51. Web-related data as claimed in Claim 50, wherein the static data is obtained from the user.

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52. Web-related data as claimed in Claim 50, wherein the static data is obtained from a content provider associated with the web content.
- 5 53. Web-related data as claimed in Claim 45, wherein the data relating to the user is dynamic data.
54. Web-related data as claimed in Claim 53, wherein the dynamic data is obtained from an access provider associated with supporting communications  
10 between the client equipment unit and the content providing server.
55. A method of personalising web content communicated between a user equipment unit and a content providing server, the method comprising the steps of:
- 15        intercepting web-related data communicated between the user equipment unit and the content providing server;  
         retrieving a predetermined amount of data relating to a user of the user equipment unit;  
         modifying the web-related data communicated between the client  
20 equipment unit and the content providing server using the predetermined amount of the data relating to the user in response to a request for obtaining the web content being transmitted from the client equipment unit.
56. A method as claimed in Claim 55, wherein the web related data is data  
25 relating to a protocol.
57. A method as claimed in Claim 56, wherein the protocol is a Hyper Text Transfer Protocol (HTTP).
- 30 58. A method as claimed in Claim 55, wherein the web related data is the web content.

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59. A method as claimed in Claim 58, wherein the web content is Hyper Text Mark-up Language (HTML) data.

60. A method as claimed in Claim 55, wherein the data relating to the user is static data.

61. A method as claimed in Claim 60, further comprising the step of: obtaining the static data from the user.

62. A method as claimed in Claim 60, further comprising the step of: obtaining the static data is from a content provider associated with the web content.

63. A method as claimed in Claim 55, wherein the data relating to the user is dynamic data.

64. A method as claimed in Claim 63, further comprising the step of: obtaining the dynamic data from an access provider associated with supporting communications between the client equipment unit and the content providing server.

65. Computer executable software code stored on a computer readable medium, the code being for personalising web content communicated between a user equipment unit and a content providing server, the code comprising:

code to intercept web-related data communicated between the user equipment unit and the content providing server;

code to retrieve a predetermined amount of data relating to a user of the user equipment unit;

code to modify the web-related data communicated between the client equipment unit and the content providing server using the predetermined amount of the data relating to the user in response to a request for obtaining the web content being transmitted from the client equipment unit.



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 66. A programmed computer for personalising web content communicated between a user equipment unit and a content providing server, the computer comprising:

5 a memory having at least one region for storing computer executable program code, and

a processor for executing the program code stored in the memory, wherein the program code comprises:

code to intercept web-related data communicated between the user equipment unit and the content providing server;

10 code to retrieve a predetermined amount of data relating to a user of the user equipment unit;

code to modify the web-related data communicated between the client equipment unit and the content providing server using the predetermined amount of the data relating to the user in response to a request for obtaining the web content being transmitted from the client equipment unit.

67. A computer readable medium having computer executable code stored thereon, the code being for personalising web content communicated between a user equipment unit and a content providing server, the code comprising:

20 code to intercept web-related data communicated between the user equipment unit and the content providing server;

code to retrieve a predetermined amount of data relating to a user of the user equipment unit;

25 code to modify the web-related data communicated between the client equipment unit and the content providing server using the predetermined amount of the data relating to the user in response to a request for obtaining the web content being transmitted from the client equipment unit.